accenture
Innovation delivered.

COMMENTS REGARDING THE SERVICE DELIVERY MODEL FOR ARIZONA TELECOMMUNICATIONS OPERATIONS

Prepared for Arizona Telecommunications Executive Governance Committee, the Department of Administration (ADOA,) and Arizona Government Information Technology Agency (GITA)

Prepared by Accenture, LPP

7/16/2003

The Arizona Telecommunications Executive Governance Committee (the "Committee") on June 18, 2003 issued a request for comments from interested parties regarding the privatization of the State's telecommunications operations that are today handled by the Arizona Telecommunications System (ATS) and directly by many of the State agencies. The Committees request asked for comments in 3 areas:

- Recommended Service Delivery Model (including justification)
- Migration Strategy (including exit strategy)
- Cost Saving Measures (including realizing value from existing assets).

This paper addresses the Service Delivery Model.

1.0 Recommended Service Delivery Model

Accenture wishes to make the following points relative to the Service Delivery Model.

- Privatization - Accenture recommends privatization and the use of an outsourced services delivery model for the following reasons:
    - There is tremendous opportunity for cost savings in Arizona in the areas of voice communications services and wide area network (WAN) services through:
        - Consolidation—elimination of duplication between agencies
        - Convergence—combining the voice and data networks
        - Innovation—use of new network architectures and automation of frequently used functions (such as phone station moves, adds & changes, issue troubleshooting, and equipment maintenance) to reduce cost and improve service
    - The changes that the State of Arizona needs to make are very difficult for any organization to make internally. Outsourcing or privatization is commonly used by businesses and government to achieve this type of dramatic change, since the outsourcing vendor can be incented to drive the change, required to measure performance and results, and penalized if the provided service does not meet requirements. It is difficult to achieve this level of accountability with an internal organization.

accenture
Innovation delivered.

COMMENTS REGARDING THE MIGRATION STRATEGY FOR ARIZONA TELECOMMUNICATIONS OPERATIONS

Prepared for Arizona Telecommunications Executive Governance Committee, the Department of Administration (ADOA,) and Arizona Government Information Technology Agency (GITA)

Prepared by Accenture, LLP

7/16/2003

The Arizona Telecommunications Executive Governance Committee (the "Committee") on June 18, 2003 issued a request for comments from interested parties regarding the privatization of the State's telecommunications operations that are today handled by the Arizona Telecommunications System (ATS) and directly by many of the State agencies. The Committees request asked for comments in 3 areas:

- Recommended Service Delivery Model (including justification)
- Migration Strategy (including exit strategy)
- Cost Saving Measures (including realizing value from existing assets).

Accenture is responding with 3 separate documents that include the following sections:

1.0 – Service Delivery Model
2.0 - Migration Strategy
3.0 – Cost Saving Measures

This paper addresses the Migration Strategy.

2.0 Migration Strategy

Accenture believes that the overall success of the entire program depends on providing measurable savings, a compelling and next-generation solution, and improved service that is backed by Service Level Agreements. Migrating to an operation that provides these benefits takes time, and should be undertaken within a framework that addresses the program governance needs of the State and the individual needs and requirements of different agencies. Migration should also be performed according to a schedule that is based on the tasks necessary to deliver the business benefits and improvements expected by State leadership.

accenture
Innovation delivered.

The Migration Strategy must provide a low-risk approach to convert to a new method of operations that meets the State's requirements with better cost-efficiency, without disrupting the delivery of critical voice and data services during the process. The key points regarding migration strategy are:

- Initially, use existing assets to deliver service (such as the MSL-100, Mall MAN, and the existing data network). This lowers the risk to service delivery and will help to maximize upfront savings, should this be required.

- The State should maintain the flexibility to determine the location priorities and speed of the migration. The specific needs of different agencies can be accommodated based on:
    - The need to generate savings (reducing cost)
    - The need to replace obsolete and un-maintainable equipment (assuming that this reduces costs, improves service, or both)
    - Other business considerations, such as federal funding or appropriations guidelines

- Consideration of different types of Phased Migrations:
    - Migrations can be done in different ways, but there will likely be a best approach driven by Arizona's business priorities. Priorities to capture savings or deploy new technologies can result in radically different migration approaches.
    - There may be some desire to construct the migration phases around the current ATS customers. While this is possible the State should understand that concentrating only on the campus mall – as an example – will tend to severely limit the amount of savings that can be captured from toll bypass or tail-end hop-off. There is likely a considerable amount of savings to be captured from implementation of these techniques, but that will require expansion of the migration effort to agencies and offices outside the campus mall or Phoenix—Accenture envisions a phased migration.
    - There may be a desire to conduct technology evaluations or pilots in advance of migration. In general these can and should be avoided. Convergence technologies, which in general will comprise the "to be" architecture deployed during the migration, are mature enough to be implemented without major technology validation phases. Normal configuration testing and operational verification steps should be sufficient, especially if there is a sound SLA-back support organization in place.

- Suggested Migration Strategy:
    - **Phase I** - Deploy the convergence technology upgrades required to support IP enablement and capture toll bypass and tail-end hop-off savings as quickly as possible
        - IP enable existing PBXs to capture toll bypass and tail-end hop-off savings—that is, redirect voice traffic between State sites over data connections at a much lower cost per minute. Upgrade WAN routers as required.
        - Begin replacement of the Mall MAN with Gigabit Ethernet and routers that support Quality of Service (QoS)
        - Design a centralized IP Telephony system (with redundant site for backup) to provide telephone service to Mall users as well as support medium or small agencies and offices throughout the State

- Develop a detailed financial models to set baselines for convergence technology investments and the expected level of cost savings captured as a result of these investments
- Work initially with agencies that wish to reduce costs and reap a portion of the rewards of the gain-sharing model
- The State, where appropriate, should own equipment and software. This will lower the overall cost for the State. Other financial means can be used assuming that the business case supports any increased costs.

- **Phase II**
  - Build on pre-existing IP Telephony pilots to implement centralized IP Telephony system (with redundant site for backup) to provide telephone service to the Mall and to small and medium sites throughout the State
  - Systematically replace MSL-100 in order to capture cost savings in maintenance and MAC's
  - Perform upgrades of LANs as required to support IP Telephony
  - Install standard cabling as needed to support LAN performance and IP Telephony
  - Design Backbone WAN architecture to provide a consolidated network for most agencies and thereby minimize State-wide cost

- **Phase III**
  - Deploy or upgrade routers in Backbone for quality of service
  - Design distribution network architecture (tail circuits) to greatly reduce cost (e.g. use DSL, Cable modem, frame)
- **Phase IV**
  - Gradually upgrade distribution network and equipment
  - Gradually upgrade LANs and wiring at sites
  - Install IP Telephony throughout the State using centralized systems in Phoenix and Tucson

- Potential Exit Strategies
  - Contractually provide for transfer of people and systems (assets) to State
  - Use a True-Up process (or benchmarking) to assess performance verses other organizations on an annual basis
  - Keep carrier services contracts separate from outsourced operations
  - Allow for separation of contract services into "towers" that can be more easily taken over by the State—for example, maintenance and MAC, dispatch center, and back-office work (e.g. charge-back, telecom expense management, asset management, design and innovation, program management).

accenture
Innovation delivered.

COMMENTS REGARDING THE COST SAVING MEASURES FOR ARIZONA TELECOMMUNICATIONS OPERATIONS

Prepared for Arizona Telecommunications Executive Governance Committee, the Department of Administration (ADOA,) and Arizona Government Information Technology Agency (GITA)

Prepared by Accenture, LLP

7/16/2003

The Arizona Telecommunications Executive Governance Committee (the "Committee") on June 18, 2003 issued a request for comments from interested parties regarding the methodology for handling the State's telecommunications operations that are today handled by the Arizona Telecommunications System (ATS) and directly by many of the State agencies. The Committees request asked for comments in 3 areas:

- Recommended Service Delivery Model (including justification)
- Migration Strategy (including exit strategy)
- Cost Saving Measures (including realizing value from existing assets).

This paper addresses the Cost Saving Measures.

3.0 Cost Saving Measures

Accenture wishes to make the following points regarding Cost Savings Measures.

- SAVINGS, SOLUTION, & SERVICE are all important for a successful program, but the importance of savings cannot be underestimated.
- Most State agencies will be required to participate in order to meet the savings goals of the legislature. This does not mean 100% but it does mean that the vendor will need flexibility and opportunity to implement service transition in a way that will capture the required savings. This could mean that most agencies will need to participate at some level (including their largest sites or highest network transition operations, for instance).
- Requiring a fixed schedule that mandates large capital expenditures either by the State or by the Vendor will erode or eliminate savings.
    - Capital investment must be targeted to provide the capabilities that are needed to deliver savings, unless the State simply wishes to upgrade its technology, and prioritizes the deployment of the new technology over the capture of savings. However, once the

savings begin to be captured, the State has the option to use these funds to accelerate the deployment of additional technology upgrades.

- If additional government entities can join the privatization effort, such as K-12 schools or cities and counties this will benefit all by driving per-unit prices lower still.
- Costs can also be realized from efficiency gains by:
  - Leveraging vendor and equipment manufacturer automation software for service provisioning and activation (i.e. disconnections, new connections, moves, password resets) to reduce cost.
  - Provision of Dispatch Center (help desk) personnel with facilities proactively discover outages and be able to tell callers when service will be restored.
- Perform Telecom Expense Management (TEM)—acting as State's agent
  - Eliminate over trunking
  - Eliminate unused circuits
  - Eliminate unused PBX and voice mail ports
  - Analyze all carrier invoices and eliminate incorrect charges and recover over charges
  - Reconfigure circuits/carrier services to reduce cost
- Converge onto one network
  - Utilize IP Telephony and convergence technologies
  - Combining agency circuits to run in parallel—by building a common backbone network
  - By converting to all IP traffic
- Other consolidation-related savings:
  - Use common processes and systems for each service such as installs, help desk support, MACs, trouble reporting, etc
  - Over time identify and remove duplication between the agencies in voice and data communications
- Reduce equipment, maintenance, and support costs for voice by using centralized IP Telephony system rather than a PBX or key system at many sites
- Some general business case rules:
  - Current spending per year is $66M for externally provided services (e.g. carriers) and ATS ($14M of the $66M)
  - For Privatization to work about $10M per year of savings needs to be provided
  - Therefore, price to Arizona must be $56M per year
  - Can Vendors charge $56M per year and make a profit
    - Answer is YES, the State's business case can be readily satisfied.

  - Voice and WAN services are not core or strategic functions of government—they are required to conduct business, but government is not in the telecommunications business itself. Therefore these types of services are excellent candidates for privatization.
  - Outsourcing of voice and WAN services has been successfully done hundreds of times, savings have been generated, and services levels have been improved. Examples include the National Security Agency, Boeing, Kodak, Raytheon, Hughes, Dupont, and Dow Chemical.

- Balancing program savings against new technology implementation and improved service:
  - The State of Arizona's goals for operational savings will affect most or all aspects of the overall service delivery model. If the State desires the maximum amount of savings possible, then it will need to weigh that priority against the competing priorities to acquire and deploy new technology or achieve improvements in service, each of which require some level of funding to achieve.
  - When examining operational cost savings, the deployment of new technology, and an improved level of service, it is important to understand that the most difficult undertaking is the identification and capture of savings. The Service Delivery Model can and should be structured around a detailed business operating model that identifies expenditures and savings.
  - Developing the business model requires expertise not only in how the telecommunications business works, but also how the State appropriations and budgeting process works. In order to provide oversight, the State must understand the business model and take part in identifying and analyzing the data the model is based on.

- Managing Program Risk:
  - Provide the potential Vendors with adequate information regarding the State's Telecom spending—the amount of savings depends upon the amount of spending and the areas of spending, so the Vendor will need this information to provide the best approach for the State.
  - Contain the scope. Telecommunications outsourcing has failed, or been abandoned, for primarily one reason—the scope was too large and too varied, and this generates too much complexity (e.g. State of Georgia). In this situation, the broad scope means no one organization can provide or manage all services, or accept all of the execution risk.
  - The State should request the vendors develop a clear funding plan for the program, and insure that the selected vendor is able to assist agencies in planning and managing their future telecom budgets.
  - Mandatory participation is best, but privatization is workable under a looser set of rules that provides the option to exclude if pricing and service gains are not available for a particular agency.
  - Insure there is adequate competition—see Managing Carrier Services below.

- Managing Carrier Services:
    - Carrier services should be procured by the State through separate contract vehicle(s) because combining the carrier services and the privatization contracts will reduce competition and increase costs and risks to the State.
        - Carrier services are regulated by the State and the FCC. If the procurement includes carrier services, then the bidders must be regulated carriers. Because of this, non-carrier businesses are unwilling to bid as primes where carrier services are included, since they are either legally required to become regulated carriers by the State, or else are forced to pass-through carrier services with no markup. Compliance with GAAP means that the effect of the latter can have a significant negative impact to a businesses' income statement. In other words it would become unattractive to do business with the State. Again this would tend to reduce competition and increase prices and risk to the State.
        - Much of the savings derived from operations would come in the form of reduced carrier charges. A carrier is by definition in conflict-of-interest if given responsibility for managing a project to reduce its own revenues. A non-carrier business can perform this service independently.

    - Carrier services contracts should be managed by the Vendor acting on behalf of the State as the State's agent. Under this management approach:
        - The privatization vendor drives network design and deployment to standardize architecture and services while minimizing network cost for required levels of service
        - A portion of the Vendor's payment could come from Vendor generated carrier savings, thereby providing the Vendor with a tremendous incentive to drive down carrier costs.

- Scope of services:
    - In general the scope of services should be equivalent to that which ATS provides today, but to a statewide collection of customers. These services should be provided to State customers under a comprehensive SLA schedule. Where appropriate, penalties and liquidated damages that place the privatization vendor's fees at risk should be a part of the privatization contract. Required services might include:
        - Maintenance and operation of equipment (e.g. PBXs, key systems, voice mail, routers, IP telephony systems)
        - Manage carrier service issues from identification to correction
        - Monitor systems to insure required levels of availability and perform remote trouble clearing
        - Change Management
            1. Plan and perform requested MACs (e.g. add users, add services, disconnect users)

2. Install new systems to support office moves and changing requirements
3. Refresh existing systems
4. Train users

- Asset management, leasing, & ownership
- Telecom Billing & expense management to verify carrier charges
- Service Level Agreements (SLAs)
  - Heavy monetary penalties for missed SLAs may increase cost to the State. Therefore they should be applied only when the service type covered by the SLA is critical.

- State Governance and Program Management:
  - These are critical functions for identifying and setting State business priorities on an ongoing basis, monitoring vendor performance, and building and maintaining agency participation.
    - It is possible to use the operational business model to develop criteria that gives customers the option of excluding themselves from the privatized services. However without a core commitment to conduct a minimum amount of business with the privatization vendor, the vendors will find it difficult to commit to lower pricing or service improvements.
    - It is possible to have a program where the vendor is incented to provide improved pricing and service that increases the "attractiveness" and use of the privatized contract. However the State will have to commit to increased usage when the vendor meets performance targets to realize the full benefit of this type of arrangement
    - This can perhaps best be done by the establishment of a "meets test" so that when the vendor meets savings and quality goals for an agency then that agency will procure its services from the privatization vendor.
  - If possible the State governance team should have some authority to mandate participation. This may be done in conjunction with legislative support or other types or oversight.

- Personnel and Human Resources issues for consideration:
  - Should the Vendor be required to hire all displaced State personnel?
    - This is a State decision. It can affect savings, but usually not significantly. Further, the State benefits from continued access to the skills of personnel experienced in the State's operations.
    - The State may want to leave this as an open issue for Vendor offers.

- The Service Delivery Model
  - The figure on the next page graphically illustrates an example Service Delivery Model. It shows the interaction between various service providers and State agencies and describes the role that the State program management and governance teams could play.

accenture
Innovation delivered

Arizona State Telecommunications Service Delivery Model